



University of California, Santa Barbara
Program Learning Outcomes

Master of Environmental Science and Management

Students graduating with a MESM in Environmental Science and Management should be able to:

(Items listed in italics are considered highly desirable outcomes but are not required for degree completion.)

Core Knowledge

- Demonstrate broad knowledge of environmental science and management including competency in ecology, earth system science, biogeochemistry, microeconomics, environmental economics, statistics, environmental law, business and the environment, and environmental politics and policy.

Specialization Knowledge

- Demonstrate depth of advanced knowledge in a specialization of environmental science and management such as coastal marine resources management, conservation planning, corporate environmental management, economics and politics of the environment, energy and climate, pollution prevention and remediation, and water resources management.

Research Methods and Analysis

- Demonstrate quantitative and qualitative methodologies used in environmental science and management.
- Design and implement a rigorous study using appropriate methods, measures, and techniques.
- Critically evaluate and systematically analyze data for the purpose of solving environmental problems.

Scholarly Communication

- Structure a coherent academic argument that rigorously presents and evaluates evidence to support claims.
- Review and cogently synthesize relevant literature.
- Write accurate papers, technical reports, memos, policy briefs and other documents commonly used in environmental science and management.
- Make academic and public presentations that are compelling and of professional quality.

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Program Learning Outcomes, continued

- Cogently summarize their research and its significance for non-specialist audiences.
- *Present a research paper or poster at a professional conference.*

Professionalism

- Demonstrate leadership through innovation and initiative in the field of environmental science and management.
- Make effective contributions to a team.
- Formulate a work plan to advance a research project or other investigation.
- Engage in effective project management.
- Cultivate and maintain strong professional relations with colleagues, professional associates, clients, and customers.
- Create products that satisfy employer, client and customer needs.
- Make compelling presentations to communicate results of investigations.
- Prepare and discuss a poster suitable for presentation at a professional conference.
- *Make effective contributions to university, community and professional service.*